

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE J		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 0001		3. EFFECTIVE DATE 15-Jul-2003		4. REQUISITION/PURCHASE REQ. NO. W13G86-3142-0699		5. PROJECT NO.(If applicable)	
6. ISSUED BY DEPT. OF THE ARMY N E DISTRICT, CORPS OF ENGINEERS 696 VIRGINIA ROAD CONCORD MA 01742-2751		CODE DACW33		7. ADMINISTERED BY (If other than item 6) See Item 6			
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)				<input checked="" type="checkbox"/> X		9A. AMENDMENT OF SOLICITATION NO. DACW33-03-B-0006	
				<input checked="" type="checkbox"/> X		9B. DATED (SEE ITEM 11) 02-Jul-2003	
						10A. MOD. OF CONTRACT/ORDER NO.	
						10B. DATED (SEE ITEM 13)	
CODE		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input checked="" type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input checked="" type="checkbox"/> is not extended. Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).							
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) (Amendment necessary various specification and drawing changes.)							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				TEL: _____ EMAIL: _____			
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA BY _____ (Signature of Contracting Officer)		16C. DATE SIGNED 15-Jul-2003	
EXCEPTION TO SF 30 APPROVED BY OIRM 11-84				30-105-04		STANDARD FORM 30 (Rev. 10-83) Prescribed by GSA FAR (48 CFR) 53.243	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION 00010 - SOLICITATION CONTRACT FORM

The contractor period of performance begin date has increased by 5 days from 10 days to 15 days.

The performance period code Mandatory has been added.

SPECIFICATIONS.

Section 00800, SPECIAL CONTRACT REQUIREMENTS. The following section has been deleted in its entirety and replaced with the attached.

Section 01355, ENVIRONMENTAL PROTECTION. The following section has been deleted in its entirety and replaced with the attached.

Section 02325, DREDGING. The following section has been deleted in its entirety and replaced with the attached.

ATTACH.

Section 00800

Section 01355

Section 02325

(End of Summary of Changes)

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DIVISION 00 - DOCUMENTS

SECTION 00800

SPECIAL CONTRACT REQUIREMENTS

- 1.1 COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK (APR 1984) FAR 52.211-10
- 1.2 LIQUIDATED DAMAGES - CONSTRUCTION (Sept 2000) FAR 52.211-12
- 1.3 CONTRACT DRAWINGS AND SPECIFICATIONS (AUG 2000) DFARS 252.236-7001
- 1.4 DESIGNATED BILLING OFFICE
- 1.5 BID GUARANTEE (SEP 1996) FAR 52.228-1
- 1.6 PERFORMANCE OF WORK BY THE CONTRACTOR (APR 1984) FAR 52.236-1
- 1.7 OBSTRUCTION OF NAVIGABLE WATERWAYS DFAR 252.236-7002(DEC 1991)
- 1.8 PAYMENT FOR MOBILIZATION AND DEMOBILIZATION (DEC 1991) DFARS 252.236-7004..
- 1.9 QUANTITY SURVEYS. (APR 1984) ALTERNATE 1 FAR 52.236-16
- 1.10 LAYOUT OF WORK (APR 1984) 52.236-17

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SECTION 00800

SPECIAL CONTRACT REQUIREMENTS

1.1 COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK (APR 1984) FAR 52.211-10

a. The Contractor shall be required to--

(1) commence work under this contract within 15 calendar days after the date the Contractor receives the notice to proceed,

(2)) have dredging equipment on-site to initiate dredging by September 01, 2003 or within 30 days of the notice to proceed, whichever comes first, prosecute the work diligently, and

(3) complete the entire work ready for use not later than 360 calendar days after the date the Contractor receives notice to proceed. The time stated for completion shall include final cleanup of the premises.

~~b. Dredging operations at the project site will not be permitted from the date of receipt of "Notice to Proceed" through September 30, 2003. Upon receipt of notice to proceed, in lieu of dredging operations at the site, the Contractor shall promptly place all orders, award subcontracts, process required submittals and details to ensure effective action when construction operations at the site are required to commence. Actual dredging operations at the site shall commence on October 01, 2003.~~

b. Upon receipt of notice to proceed, the Contractor shall promptly place all orders, award subcontracts, process required submittals and details to ensure effective action when construction operations at the site are required to commence.

c. Due to environmental restrictions, dredging West of Spectacle Island will not be permitted from 1 February to 15 June, inclusive, of any year.

1.2 LIQUIDATED DAMAGES - CONSTRUCTION (Sept 2000) FAR 52.211-12

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of \$2,700.00 for each calendar day of delay until the work is completed or accepted.

(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

1.3 CONTRACT DRAWINGS AND SPECIFICATIONS (AUG 2000) DFARS 252.236-7001

(a) The Government will provide to the Contractor, without charge, one set

of contract drawings and specifications, except publications incorporated into the technical provisions by reference. The drawings will be provided to the Contractor in electronic or paper media as chosen by the Contracting Officer.

(b) The Contractor shall-

- (1) Check all drawings furnished immediately upon receipt;
- (2) Compare all drawings and verify the figures before laying out the work;
- (3) Promptly notify the Contracting Officer of any discrepancies;
- (4) Be responsible for any errors that might have been avoided by complying with this paragraph (b); and
- (5) Reproduce and print contract drawings and specifications as needed.

(c) In general--

- (1) Large-scale drawings shall govern small-scale drawings; and
- (2) The Contractor shall follow figures marked on drawings in preference to scale measurements.

(d) Omissions from the drawings or specifications or the misdescription of details of work that are manifestly necessary to carry out the intent of the drawings and specifications, or that are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work. The Contractor shall perform such details as if fully and correctly set forth and described in the drawings and specifications.

(e) The work shall conform to the specifications, and to the contract drawings identified on the following index of drawings:

Drawing No.	Sheet No.	Title
		BOSTON HARBOR
		MAINTENANCE DREDGING
		40 & 35 FOOT CHANNEL
		40 FOOT ANCHORAGE
		BOSTON, MASSACHUSETTS
C-1	2	40 Foot Broad Sound North
		Channel Plan No.1, Index To
		Drawings, Legend, And
		Navigation Aids
		MAINTENANCE DREDGING OF
		THE FEDERAL NAVIGATION CHANNEL
		BOSTON, MASSACHUSETTS
		40-foot Broad Sound - North
		Channel
C-1	2	Plan No. 1 and Index to
		Drawings

1.4 DESIGNATED BILLING OFFICE

Reference Contract Clause titled "PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS" located in SECTION 00700, CONTRACT CLAUSES. The "designated billing office" will be the Construction Area Engineer, Resident Engineer or project office where the Contracting Officer Representative for this contract is located. The Contractor will be notified of the exact location of this office at the project preconstruction conference specified in Section 01110 SUMMARY OF WORK.

1.5 BID GUARANTEE (SEP 1996) FAR 52.228-1

(a) Failure to furnish a bid guarantee in the proper form and amount, by the time set for opening of bids, may be cause for rejection of the bid.

(b) The bidder shall furnish a bid guarantee in the form of a firm commitment, e.g., bid bond supported by good and sufficient surety or sureties acceptable to the Government, postal money order, certified check, cashier's check, irrevocable letter of credit, or, under Treasury Department regulations, certain bonds or notes of the United States. The Contracting Officer will return bid guarantees, other than bid bonds, (1) to unsuccessful bidders as soon as practicable after the opening of bids, and (2) to the successful bidder upon execution of contractual documents and bonds (including any necessary coinsurance or reinsurance agreements), as required by the bid as accepted.

(c) The amount of the bid guarantee shall be twenty percent of the bid price or \$3,000,000, whichever is less.

(d) If the successful bidder, upon acceptance of its bid by the Government within the period specified for acceptance, fails to execute all contractual documents or furnish executed bond(s) within 10 days after receipt of the forms by the bidder, the Contracting Officer may terminate the contract for default.

(e) In the event the contract is terminated for default, the bidder is liable for any cost of acquiring the work that exceeds the amount of its bid, and the bid guarantee is available to offset the difference.

1.6 PERFORMANCE OF WORK BY THE CONTRACTOR (APR 1984) FAR 52.236-1

The Contractor shall perform on the site, and with its own organization, work equivalent to at least twenty percent (20%) of the total amount of work to be performed under the contract. This percentage may be reduced by a supplemental agreement to this contract if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the Government.

1.7 OBSTRUCTION OF NAVIGABLE WATERWAYS DFAR 252.236-7002(DEC 1991)

(a) The Contractor shall-

(1) Promptly recover and remove any material, plant, machinery, or appliance which the contractor loses, dumps, throws overboard, sinks, or misplaces, and which, in the opinion of the Contracting Officer, may be dangerous to or obstruct navigation;

(2) Give immediate notice, with description and locations of any such

obstructions, to the Contracting Officer; and

(3) When required by the Contracting Officer, mark or buoy such obstructions until the same are removed.

(b) The Contracting Officer may-

(1) Remove the obstructions by contract or otherwise should the Contractor refuse, neglect, or delay compliance with paragraph (a) of this clause; and

(2) Deduct the cost of removal from any monies due or to become due to the Contractor; or

(3) Recover the cost of removal under the Contractor's bond.

(c) The Contractor's liability for the removal of a vessel wrecked or sunk without fault or negligence is limited to that provided in Sections 15, 19, and 20 of the River and Harbor Act of March 3, 1899 (33 U.S.C. 410 et.seq.).

1.8 PAYMENT FOR MOBILIZATION AND DEMOBILIZATION
(DEC 1991) DFARS 252.236-7004..

a. The Government will pay all costs for the mobilization and demobilization of all of the Contractor's plant and equipment at the contract lump sum price for this item.

(1) Sixty percent (60%) of the lump sum price upon completion of the Contractor's mobilization at the work site.

(2) The remaining forty (40%) percent upon completion of demobilization.

b. The Contracting Officer may require the Contractor to furnish cost data to justify this portion of the bid if the Contracting Officer believes that the percentages in paragraphs a(1) and a(2) of this clause do not bear a reasonable relation to the cost of the work in this contract.

(1) Failure to justify such price to the satisfaction of the Contracting Officer will result in payment, as determined by the Contracting Officer, of --

(i) Actual mobilization costs at completion of mobilization;

(ii) Actual demobilization costs at completion of demobilization;
and

(iii) The remainder of this item in the final payment under this contract.

(2) The Contracting Officer's determination of the actual costs in paragraph b(1) of this clause is not subject to appeal.

1.9 QUANTITY SURVEYS. (APR 1984) ALTERNATE 1 FAR 52.236-16

a) Quantity surveys shall be conducted, and the data derived from these surveys shall be used in computing the quantities of work performed and the actual construction completed and in place.

(b) The Government shall conduct the original and final surveys and make the computations based on them. The Contractor shall conduct the surveys for any periods for which progress payments are requested and shall make the computations based on these surveys. All surveys conducted by the Contractor shall be conducted under the direction of a representative of the Contracting Officer, unless the Contracting Officer waives this requirement in a specific instance.

(c) Promptly upon completing a survey, the Contractor shall furnish the originals of all field notes and all other records relating to the survey or to the layout of the work to the Contracting Officer, who shall use them as necessary to determine the amount of progress payments. The Contractor shall retain copies of all such material furnished to the Contracting Officer.

1.10 LAYOUT OF WORK (APR 1984) 52.236-17

The Contractor shall lay out its work from Government established base lines and bench marks indicated on the drawings, and shall be responsible for all measurements in connection with the layout. The Contractor shall furnish, at its own expense, all stakes, templates platforms, equipment, tools, materials, and labor required to lay out any part of the work. The Contractor shall be responsible for executing the work to the lines and grades that may be established or indicated by the Contracting Officer. The Contractor shall also be responsible for maintaining and preserving all stakes and other marks established by the Contracting Officer until authorized to remove them. If such marks are destroyed by the Contractor or through its negligence before their removal is authorized, the Contracting Officer may replace them and deduct the expense of the replacement from any amounts due or to become due to the Contractor.

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SECTION 01355

ENVIRONMENTAL PROTECTION

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

33 CFR 328	Definitions
40 CFR 68	Chemical Accident Prevention Provisions
40 CFR 279	Standards for the Management of Used Oil
40 CFR 302	Designation, Reportable Quantities, and Notification
40 CFR 355	Emergency Planning and Notification

ENGINEERING MANUALS (EM)

EM 385-1-1	(1996) U.S. Army Corps of Engineers Safety and Health Requirements Manual
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1.2 DEFINITIONS

1.2.1 Environmental Pollution and Damage

Environmental pollution and damage is the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade the environment aesthetically, culturally and/or historically.

1.2.2 Environmental Protection

Environmental protection is the prevention/control of pollution and habitat disruption that may occur to the environment during construction. The control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.

1.2.3 Contractor Generated Hazardous Waste

Contractor generated hazardous waste means materials that, if abandoned or disposed of, may meet the definition of a hazardous waste. These waste streams would typically consist of material brought on site by the Contractor to execute work, but are not fully consumed during the course of construction. Examples include, but are not limited to, excess paint thinners (i.e. methyl ethyl ketone, toluene etc.), waste thinners, excess paints, excess solvents, waste solvents, and excess pesticides, and contaminated pesticide equipment rinse water.

1.2.4 Pesticide

Pesticide is defined as any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant or desiccant.

1.2.5 Pests

The term "pests" means arthropods, birds, rodents, nematodes, fungi, bacteria, viruses, algae, snails, marine borers, snakes, weeds and other organisms (except for human or animal disease-causing organisms) that adversely affect well-being of personnel and animals; attack or damage real property, supplies, equipment, or vegetation; or are otherwise undesirable.

1.2.6 Waters of the United States

All waters which are under the jurisdiction of the Clean Water Act, as defined in 33 CFR 328.

1.3 GENERAL REQUIREMENTS

The Contractor shall minimize environmental pollution and damage that may occur as the result of construction operations. The environmental resources within the project boundaries and those affected outside the limits of permanent work shall be protected during the entire duration of this contract. The Contractor shall comply with all applicable environmental Federal, State, and local laws and regulations. The Contractor shall be responsible for any delays resulting from failure to comply with environmental laws and regulations.

1.4 SUBCONTRACTORS

The Contractor shall ensure compliance with this section by subcontractors.

1.5 PAYMENT

No separate payment will be made for work covered under this section. The Contractor shall be responsible for payment of fees associated with environmental permits, application, and/or notices obtained by the Contractor. All costs associated with this section shall be included in the contract price. The Contractor shall be responsible for payment of all fines/fees for violation or non-compliance with Federal, State, Regional and local laws and regulations.

1.6 SUBMITTALS

Government approval is required for submittals with a "G" designation;

submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Environmental Protection Plan; G, RE

The environmental protection plan.

SD-03 Product Data

Fish Startle Equipment and Sonar; G, RE.

Submit for review and approval sufficient data showing compliance with specification requirements.

SD-07 Certificates

Fisheries Observer; G, ED.

Submit for review and approval the name and qualifications of the Fisheries Observer. Present evidence that the Fisheries Observer is acceptable to the Massachusetts Division of Marine Fisheries and the National Marine Fisheries Service.

Marine Mammal Observer; G, ED.

Submit for review and approval the name and qualifications of the Marine Mammal Observer. Present evidence that the Marine Mammal Observer meets the qualifications as specified in the "Conditions Recommended be the National Marine Fisheries Service for Projects Funded or Undertaken by the Corps of Engineers that Include Disposal of Dredged Material at the Massachusetts Bay Disposal Site" attached at the end of this section.

1.7 ENVIRONMENTAL PROTECTION PLAN

Prior to commencing construction activities or delivery of materials to the site, the Contractor shall submit an Environmental Protection Plan for review and approval by the Contracting Officer. The purpose of the Environmental Protection Plan is to present a comprehensive overview of known or potential environmental issues which the Contractor must address during construction. Issues of concern shall be defined within the Environmental Protection Plan as outlined in this section. The Contractor shall address each topic at a level of detail commensurate with the environmental issue and required construction task(s). Topics or issues which are not identified in this section, but which the Contractor considers necessary, shall be identified and discussed after those items formally identified in this section. Prior to submittal of the Environmental Protection Plan, the Contractor shall meet with the Contracting Officer for the purpose of discussing the implementation of the initial Environmental Protection Plan; possible subsequent additions and revisions to the plan including any reporting requirements; and methods for administration of the Contractor's Environmental Plans. The Environmental Protection Plan shall be current and maintained onsite by the Contractor.

1.7.1 Compliance

No requirement in this Section shall be construed as relieving the Contractor of any applicable Federal, State, and local environmental protection laws and regulations. During Construction, the Contractor shall be responsible for identifying, implementing, and submitting for approval any additional requirements to be included in the Environmental Protection Plan.

1.7.2 Contents

The environmental protection plan shall include, but shall not be limited to, the following:

- a. Name(s) of person(s) within the Contractor's organization who is(are) responsible for ensuring adherence to the Environmental Protection Plan.
- b. Name(s) and qualifications of person(s) responsible for manifesting hazardous waste to be removed from the site, if applicable.
- c. Name(s) and qualifications of person(s) responsible for training the Contractor's environmental protection personnel.
- d. Description of the Contractor's environmental protection personnel training program.
- e. A silt and sediment control plan which identifies the equipment and construction methods to minimize dispersment of silt and sediment during dredging operations. The plan shall include monitoring and reporting requirements to assure that the control measures are in compliance with the plan.
- j. The Spill Control plan shall include the procedures, instructions, and reports to be used in the event of an unforeseen spill of a substance regulated by 40 CFR 68, 40 CFR 302, 40 CFR 355, and/or regulated under State or Local laws and regulations. The Spill Control Plan supplements the requirements of EM 385-1-1. This plan shall include as a minimum:
 1. The name of the individual who will report any spills or hazardous substance releases and who will follow up with complete documentation. This individual shall immediately notify the Contracting Officer and the local Fire Department in addition to the legally required Federal, State, and local reporting channels (including the National Response Center 1-800-424-8802) if a reportable quantity is released to the environment. The plan shall contain a list of the required reporting channels and telephone numbers.
 2. The name and qualifications of the individual who will be responsible for implementing and supervising the containment and cleanup.
 3. Training requirements for Contractor's personnel and methods of accomplishing the training.
 4. A list of materials and equipment to be immediately available at the job site, tailored to cleanup work of the potential hazard(s) identified.

5. The names and locations of suppliers of containment materials and locations of additional fuel oil recovery, cleanup, restoration, and material-placement equipment available in case of an unforeseen spill emergency.

6. The methods and procedures to be used for expeditious contaminant cleanup.

k. A non-hazardous solid waste disposal plan identifying methods and locations for solid waste disposal including debris collected during dredging operations. The Contractor shall identify any subcontractors responsible for the transportation and disposal of solid waste. Licenses or permits shall be submitted for solid waste disposal sites that are not a commercial operating facility. Evidence of the disposal facility's acceptance of the solid waste shall be attached to this plan during the construction.

m. An air pollution control plan detailing provisions to assure that dust, debris, materials, trash, etc., do not become air borne and travel off the project site.

n. A contaminant prevention plan that: identifies potentially hazardous substances to be used on the job site; identifies the intended actions to prevent introduction of such materials into the air, water, or ground; and details provisions for compliance with Federal, State, and local laws and regulations for storage and handling of these materials. In accordance with EM 385-1-1, a copy of the Material Safety Data Sheets (MSDS) and the maximum quantity of each hazardous material to be on site at any given time shall be included in the contaminant prevention plan. As new hazardous materials are brought on site or removed from the site, the plan shall be updated.

o. Protection of Fish and Wildlife Resources: The Contractor shall prepare and submit a "Fish Detection and Protection Plan" and a "Marine Mammal Protection Plan" as part of the Environmental Protection Plan. The plan shall include the names and qualifications of the designated observers, as well as specific details regarding protection of fish and wildlife resources during the work, including the type of fish deterrent system that will be used. If at any time during the implementation of the project, a significant fish kill or significant water quality problem occurs, and can be attributed to the project, all site activities impacting the water shall cease until the source of the problem is identified. Adequate mitigating measures shall be followed upon discussion with the appropriate state, Federal, State, and local agencies. The Contractor shall also comply with all aspects of the "Legal Requirements for operation of any vessel around North Atlantic Right Whales:" and other requirements relative to the protection of marine mammals attached at the end of this section. See also Section 02492 UNDERWATER DRILLING AND BLASTING for additional requirements for the protection of fish and wildlife to be included in the plans.

1.7.3 Appendix

Copies of all environmental permits, permit application packages, approvals to construct, notifications, certifications, reports, and termination documents shall be attached, as an appendix, to the Environmental Protection Plan.

1.8 PROTECTION FEATURES

This paragraph supplements the Contract Clause PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS. Prior to start of any onsite construction activities, the Contractor and the Contracting Officer shall make a joint condition survey. Immediately following the survey, the Contractor shall prepare a brief report including a plan describing the features requiring protection under the provisions of the Contract Clauses, which are not specifically identified on the drawings as environmental features requiring protection along with the condition of trees, shrubs and grassed areas immediately adjacent to the site of work and adjacent to the Contractor's assigned storage area and access route(s), as applicable. This survey report shall be signed by both the Contractor and the Contracting Officer upon mutual agreement as to its accuracy and completeness. The Contractor shall protect those environmental features included in the survey report and any indicated on the drawings, regardless of interference which their preservation may cause to the Contractor's work under the contract.

1.9 SPECIAL ENVIRONMENTAL REQUIREMENTS

The Contractor shall comply with the special environmental requirements included below. These special environmental requirements are an outgrowth of environmental commitments made by the Government during the project development.

1.9.1 Fisheries Observer

The Contractor shall provide the services of a Fisheries Observer with qualifications acceptable to the Massachusetts Division of Marine Fisheries and the National Marine Fisheries Service. The Fisheries Observer will be responsible for prohibiting blasting operations during the passage of schools of fish and other duties as specified, including performing marine mammal observer duties in the absence of the Marine Mammal Observer. Funding of the Fisheries Observer shall be the Contractor's responsibility.

The Fisheries Observer shall be approved by the Contracting Officer. The Contractor shall provide sonar equipment and fish startle equipment for the exclusive use of the Fisheries Observer for performing ~~dredging~~ blasting operations ~~at the specific locations and time periods specified in Section-02325 DREDGING~~ 02328 UNDERWATER DRILLING AND BLASTING..

Sonar (hydroacoustic monitoring equipment) shall be a side-scan type, which can provide a low target recognition value, distance to fish, determine the direction the fish are traveling, and provide a record of the information collected on a tape or disk.

Fish startle equipment shall be capable of deterring fish from the family Cupeidae (blueback herring, alewife) using high amplitude sound at specific frequencies. The equipment shall be similar or approved equal to Electronic Fish Startle System (EFSS) by Sonalysts, Inc., 215 Parkway North, Waterford, CT.

1.9.1.1 Marine Mammal Observer

The Contractor shall provide the services of a Marine Mammal Observer with qualifications and duties as specified in the "Conditions Recommended by the National Marine Fisheries Service for Projects Funded or Undertaken by the Corps of Engineers that Include Disposal of Dredged Material at the Massachusetts Bay Disposal Site" attached at the end of this section.

Provide ~~whale~~ mammal observers on board the scows transiting to the MBDS from February 1 to May 31 to avoid potential ship strikes, and for all underwater blasting operations. The Marine Mammal Observer will be responsible for prohibiting harassment of marine mammals and sea turtles during disposal operations, February 1 to May 31, and for all blasting operations. Funding of the Marine Mammal Observer shall be the Contractor's responsibility. The Marine Mammal Observer shall be approved by the Contracting Officer.

1.10 ENVIRONMENTAL ASSESSMENT OF CONTRACT DEVIATIONS

Any deviations, requested by the Contractor, from the drawings, plans and specifications which may have an environmental impact will be subject to approval by the Contracting Officer and may require an extended review, processing, and approval time. The Contracting Officer reserves the right to disapprove alternate methods, even if they are more cost effective, if the Contracting Officer determines that the proposed alternate method will have an adverse environmental impact.

1.11 NOTIFICATION

The Contracting Officer will notify the Contractor in writing of any observed noncompliance with Federal, State or local environmental laws or regulations, permits, and other elements of the Contractor's Environmental Protection plan. The Contractor shall, after receipt of such notice, inform the Contracting Officer of the proposed corrective action and take such action when approved by the Contracting Officer. The Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No time extensions shall be granted or equitable adjustments allowed to the Contractor for any such suspensions. This is in addition to any other actions the Contracting Officer may take under the contract, or in accordance with the Federal Acquisition Regulation or Federal Law.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 ENVIRONMENTAL PERMITS AND COMMITMENTS

This Article supplements the Contractor's responsibility under the contract clause PERMITS AND RESPONSIBILITIES to the extent that the Government has already obtained the listed environmental permits issued for the Boston Harbor maintenance Project. A Coastal Zone Consistency Determination has been obtained for this project. The Contractor shall comply with permit terms and conditions that are applicable to this contract. Such applicable terms and conditions have been extracted from the permit and are specified in the various sections of these specifications and on the contract drawings. The above referenced document shall not be relied on for contract requirements. In the event a discrepancy is discovered between the reference document and these specifications or the contract drawings, the Contractor shall notify the Contracting Officer for clarification. The Contracting Officer will rely on permit requirements and conditions to resolve perceived conflicts. A copy of the Coastal Zone Consistency Determination obtained for this project is included at the end of this section for reference only.

3.2 WATER RESOURCES

The Contractor shall keep construction activities under surveillance, management, and control to avoid pollution of surface and ground waters.

3.3 AIR RESOURCES

Equipment operation, activities, or processes performed by the Contractor shall be in accordance with all Federal and State air emission and performance laws and standards.

3.3.1 Particulates

Dust particles; aerosols and gaseous by-products from construction activities shall be controlled at all times, including weekends, holidays and hours when work is not in progress. The Contractor shall comply with all State and local visibility regulations.

3.3.2 Odors

Odors from construction activities shall be controlled at all times. The odors shall not cause a health hazard and shall be in compliance with State regulations and/or local ordinances.

3.3.3 Sound Intrusions

The Contractor shall keep construction activities under surveillance and control to minimize environment damage by noise. The Contractor shall comply with the provisions of the State of Massachusetts rules.

3.4 CHEMICAL MATERIALS MANAGEMENT AND WASTE DISPOSAL

Disposal of wastes shall be as directed below, unless otherwise specified in other sections and/or shown on the drawings.

3.4.1 Solid Wastes

Solid wastes shall be placed in containers which are emptied on a regular schedule. Handling, storage, and disposal shall be conducted to prevent contamination. Segregation measures shall be employed so that no hazardous or toxic waste will become co-mingled with solid waste. The Contractor shall transport solid waste off Government property and dispose of it in compliance with Federal, State, and local requirements for solid waste disposal. The Contractor shall verify that the selected transporters and disposal facilities have the necessary permits and licenses to operate. The Contractor shall comply with Federal, State, and local laws and regulations pertaining to the use of landfill areas.

3.4.2 Fuel and Lubricants

Storage, fueling and lubrication of equipment and motor vehicles shall be conducted in a manner that affords the maximum protection against spill and evaporation. Fuel, lubricants and oil shall be managed and stored in accordance with all Federal, State, Regional, and local laws and regulations. Used lubricants and used oil to be discarded shall be stored in marked corrosion-resistant containers and recycled or disposed in accordance with 40 CFR 279, State, and local laws and regulations. Storage of fuel on the project site shall be in accordance with all Federal, State, and local laws and regulations.

3.5 HISTORICAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

If during excavation or other construction activities any previously unidentified or unanticipated historical, archaeological, and cultural resources are discovered or found, all activities that may damage or alter such resources shall be temporarily suspended. Resources covered by this paragraph include but are not limited to: any human skeletal remains or burials; artifacts; shell, midden, bone, charcoal, or other deposits; rock alignments, pavings, wall, or other constructed features; and any indication of agricultural or other human activities. Upon such discovery or find, the Contractor shall immediately notify the Contracting Officer so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special disposition of the finds should be made. The Contractor shall cease all activities that may result in impact to or the destruction of these resources. The Contractor shall secure the area and prevent employees or other persons from trespassing on, removing, or otherwise disturbing such resources.

3.6 BIOLOGICAL RESOURCES

The Contractor shall minimize interference with, disturbance to, and damage to fish, wildlife, and plants including their habitat. The Contractor shall be responsible for the protection of threatened and endangered animal and plant species including their habitat in accordance with Federal, State, Regional, and local laws and regulations.

3.7 PREVIOUSLY USED EQUIPMENT

The Contractor shall clean all previously used construction equipment prior to bringing it onto the project site. The Contractor shall ensure that the equipment is free from soil residuals, egg deposits from plant pests, noxious weeds, and plant seeds. The Contractor shall consult with the USDA jurisdictional office for additional cleaning requirements.

3.8 MAINTENANCE OF POLLUTION FACILITIES

The Contractor shall maintain permanent and temporary pollution control facilities and devices for the duration of the contract or for that length of time construction activities create the particular pollutant.

3.9 TRAINING OF CONTRACTOR PERSONNEL

The Contractor's personnel shall be trained in all phases of environmental protection and pollution control. The Contractor shall conduct environmental protection/pollution control meetings for all Contractor personnel prior to commencing construction activities. Additional meetings shall be conducted for new personnel and when site conditions change. The training and meeting agenda shall include: methods of detecting and avoiding pollution; familiarization with statutory and contractual pollution standards; installation and care of devices, vegetative covers, and instruments required for monitoring purposes to ensure adequate and continuous environmental protection/pollution control; anticipated hazardous or toxic chemicals or wastes, and other regulated contaminants; recognition and protection of archaeological sites, artifacts, and endangered species and their habitat that are known to be in the area.

3.10 POST CONSTRUCTION CLEANUP

The Contractor shall clean up all areas used for construction in accordance with Contract Clause: "Cleaning Up". The Contractor shall, unless

otherwise instructed in writing by the Contracting Officer, obliterate all signs of temporary construction facilities such as haul roads, work area, structures, foundations of temporary structures, stockpiles of excess or waste materials, and other vestiges of construction prior to final acceptance of the work. The disturbed area shall be graded, filled and the entire area seeded unless otherwise indicated.

ATTACHMENTS

Boston Harbor Fisheries (and Marine Mammal) Observer Criteria

The fisheries observer should have an educational background in marine biology, general experience aboard dredges, and hands on field experience with Massachusetts marine fish species. A person who does not have a college degree in marine biology or related field may be qualified as an observer if s/he has field experience with fisheries, sonar, and fish startle systems..

1. Education: College degree (B.S. or higher) in marine biology or related field.
2. Field Experience and Equivalents:
 - a. Documented field research focused on Massachusetts marine fish species or its habitat OR has worked at least two years on a commercial fishing vessel identifying and locating at least two of the following fish species, rainbow smelt, alewife, blueback herring, menhaden, winter flounder, and striped bass, using sonar AND
 - b. Has at least one month of work experience with a fish startle system.
3. Dredge Experience: Experience in any capacity aboard dredges of the same type as those to be used in the proposed project, would be helpful.
4. Skill Set - Observers must be able to:
 - a. identify the following six species: rainbow smelt (*Osmerus mordax*), alewife (*Alosa pseudoharengus*), blueback herring (*Alosa aestivalis*), menhaden (*Brevoortia tyrannus*), winter flounder (*Pseudopleuronectes americanus*), and striped bass (*Morone saxatilis*).
 - b. take standard field measurements (total length and weight) of fish killed by blasting (i.e. floating at the surface), if more than a few dozen fish. If hundreds or thousands of fish are killed, then representative samples will be taken.
 - c. run the fish startle system and observe and record the behavior of fish before and during use of the fish startle system.
 - d. observe fish patterns and any marine mammals (such as harbor porpoises and seals) in the area, and advise dredge and disposal operators on the appropriate blast timing to avoid impacting these biological resources.
 - e. provide a summary report of data collected on fish behavior, before and during the use of the fish startle system, results of fish killed (including species, length, and weight) during blasting, and observations of marine mammals to dredging and blasting operations.

**Conditions Recommended by the National Marine Fisheries Service for
Projects Funded or Undertaken by the Corps of Engineers that Include
Disposal of Dredged Material at the Massachusetts Bay Disposal Site**

(1) From February 1 through May 31 of any year, disposal vessels including tugs, barges, and scows transiting between the dredge site and the Massachusetts Bay Disposal Site shall operate at speeds not to exceed 5 knots after sunset, before sunrise, or in daylight conditions where visibility is less than one nautical mile. Disposal shall not proceed if these requirements cannot be met due to weather or sea conditions. In that regard, the vessel captain and/or contractor should be aware of predicted conditions before departing for the disposal site. The intent of this condition is to reduce the potential for vessel collisions with threatened and endangered species, including right whales.

(2) From February 1 through May 31 of any year, an approved marine observer (i.e., meeting the attached National Marine Fisheries Service (NMFS) criteria on observer qualifications, including the specified skill sets for sea turtles and whales) must be present aboard disposal vessel transiting between the dredge site and the Massachusetts Bay Disposal Site during daylight hours. When threatened or endangered species are observed to be present, the vessel captain shall, except when precluded by safety considerations, follow the advice of the marine mammal observer to avoid harassment of or direct impact to individual animals. The observer shall fully complete a separate Corps of Engineers marine mammal observation report for every sighting and shall ensure that this report is received by the Corps New England District, Environmental Resources Section (fax number (978) 318-8560) and The Regulatory Compliance Branch (fax number (978) 318-8303) within one week of the trip date. The observer shall maintain contact with the NMFS (Habitat and Protected Resource Division, phone number (508)281-9328) and other recognized experts to provide and receive information regarding the presence and distribution of threatened and endangered species in Massachusetts Bay. All right whale sightings (including location) shall be reported. The contractor or observer shall call a pager # 978-585-8473 if a right whale is spotted. The intent of this condition is to reduce the potential for vessel collisions with threatened and endangered species, including right whales, and to minimize potential impacts of dredged material disposal on threatened and endangered species.

Marine mammal observers shall use the following guidelines to minimize conflicts with threatened or endangered species:

(a) A marine mammal observer shall be posted on lookout at all times during daylight hours when disposal vessels have left the harbor and are underway or at the disposal site.

(b) Disposal vessels shall not approach threatened or endangered species closer than 100 feet (see additional condition below for approaching right whales).

(c) Disposal vessels shall adhere to the attached NMFS regulations for approaching right whales, 50 CFR Part 222.32, which restrict approaches within 500 yards of a right whale and specify avoidance measures for vessels that encounter right whales.

(d) If threatened or endangered species are sighted within 500 feet from

the disposal point, dredged material shall not be released. In this case, the vessel captain may elect to wait until the animals move away from the disposal point prior to disposal, or, subject to the judgement of the observer, may dispose at an authorized alternative disposal location under the same restrictions noted herein for disposal at the primary disposal location.

(e) If threatened or endangered species are sighted between 500 feet and 1500 feet from the disposal point, the observer shall note the animal's behavior, relative position, and direction and speed of movement to determine if release of dredged material is likely to harass or endanger the animals. For example, whales actively feeding at or near the disposal point are more likely than resting whales to interact with released sediments. If the observer judges that disposal is likely to harass or endanger the animals, the observer shall inform the vessel captain and disposal shall be delayed until the animals change their behavior or move away such that the observer judges that no danger to the animals will result from disposal.

OBSERVER CREDENTIALS

Certain credentials and experience might indicate an observer has the skills listed below. Ideally, the applicant will have an educational background in marine biology, general experience aboard dredges, and hands on field experience with the species of concern.

A person who does not have a college degree in marine biology or a related field may be qualified as an observer if she/he has successfully completed an approved endangered species dredge observer training program (item 3a), and has twice the experience identified as necessary in items 2b, 3c, and 3d.

1. EDUCATION: College degree (BS or higher) in marine biology or a related field, and

2. DREDGE/FLOAT EXPERIENCE:

a) For shortnose sturgeon or sea turtle observers: Work for a minimum of one week in any capacity aboard dredges of the same type as those to be used in the proposed project, or

b) For large whale observers: Work for a minimum of two months as a naturalist or wildlife guide aboard an active whale watch vessel or other vessel primarily engaged in the observation of large whales in the wild, and

3. FIELD EXPERIENCE AND EQUIVALENTS

a) Successful completion of an approved endangered species dredge observer training course, or

b) Documented field research focused on the species or its habitat, or

c) Work for a minimum of four months as an endangered species observer-in-training aboard dredges that have interacted with the species in question, or

d) Active involvement for a minimum of one year in organized responses to protected species stranding events where sea turtles and marine mammals are identified and handled.

Note: If dredge operations are likely to interact with more than one group of protected species, the observer must demonstrate that he/she has all of the respective skill sets.

4. SKILL SETS

- a) Observers must be able to identify sea turtle species.
- b) Observers must be able to advise dredge operators on the appropriate maneuvering to avoid harassing or impacting sea turtles.
- c) Observers must be able to identify endangered whale species that may be encountered during project operations.
- d) Observers must be able to discern whale behaviors, such as milling, traveling, and feeding.
- e) Observers must be able to demonstrate knowledge of individually distinctive markings on humpback and right whales for identification purposes.

5. NOAA AND NMFS APPROVAL

Marine mammal observers for this project shall be NOAA Fisheries approved observers and shall also have written approval/certification from the National Marine Fisheries Service (NMFS).

I. Legal Requirements for operation of any vessel around North Atlantic Right Whales:

50 CFR Parts 217 and 222

222.32 Approaching North Atlantic Right Whales

(a) Prohibitions. Except as provided under paragraph (c) of this section, it is unlawful for any person subject to the jurisdiction of the United States to commit, attempt to commit, to solicit another to commit, or cause to be committed any of the following acts:

(1) Approach (including by interception) within 500 yards (460m) of a right whale by vessel, aircraft, or any other means;

(2) Fail to undertake required right whale avoidance measures specified under paragraph (b) of this section.

(b) Right Whale Avoidance Measures. Except as provided under paragraph (c) of this section, the following avoidance measures must be taken if within 500 yards (460m) of a right whale:

(1) If underway, a vessel must steer a course away from the right whale, and immediately leave the area at a slow safe speed;

(2) An aircraft must take a course away from the right whale and immediately leave the area at a constant air speed.

(c) Exceptions. The following exceptions apply to this section, but any person who claims the applicability of an exception has the burden of proving that the exception is applicable:

(1) Paragraph (a) and (b) of this section do not apply if a right whale approach is authorized by NMFS through a permit issued under subpart C (Endangered Fish or Wildlife Permits) of this part or through a similar authorization.

(2) Paragraph (a) and (b) of this section do not apply where compliance would create an imminent and serious threat to a person, vessel, or aircraft

(3) Paragraph (a) and (b) of this section do not apply when approaching to investigate a right whale entanglement or injury, or to assist in the disentanglement or rescue of a right whale.

(4) Paragraphs (a) and (b) of this section do not apply to an aircraft unless the aircraft is conducting whale watch activities or is being operated for that purpose.

(5) Paragraph (b) of this section does not apply to the extent that a vessel is restricted in her ability to maneuver, and because of the restriction, cannot comply with paragraph (b) of this section.

II. Requirements on operation around any large whale or sea turtle for purposes of ocean disposal at the Massachusetts Bay Disposal Site:

(a) Operational restrictions.

(1) Disposal operators must not approach within 500 yards (460m) of any

large whale or 100 yards of any sea turtle with a vessel;

(2) Disposal operators must follow the avoidance measures described below:

(b) Avoidance Measures. Except as provided under paragraph (c) of this section, the following avoidance measure must be taken if within 500 yards (460m) of any large whale or 100 yards of any sea turtle:

(1) If underway, a vessel must steer a course away from the whale or sea turtle, and immediately leave the area at a slow safe speed;

(c) Exceptions. The following exceptions apply to this section, but any person who claims the applicability of an exception has the burden of proving that the exception is applicable:

(1) These requirements do not apply where compliance would create an imminent and serious threat to a person or vessel.

(2) These requirements do not apply when approaching to investigate a right whale entanglement or injury, or to assist in the disentanglement or rescue of a right whale, provided that permission is received from NMFS or a NMFS designee prior to the approach.

(3) Paragraph (b) of this section does not apply to the extent that a vessel is restricted in her ability to maneuver (as defined in 72 COLREGS, 33 CFR) , and because of the restriction, cannot comply with paragraph (b) of this section.

III. Requirements for release of dredged material at the Massachusetts Bay Disposal Site:

If threatened or endangered species of any kind (including whales and sea turtles) are sighted within 500 yards from the disposal point, operators must wait for the animals to leave the area or must use an alternative disposal point specified by the Corps of Engineers (NAE) within the boundary of the designated disposal site. If threatened or endangered species of any kind are sighted between 500 and 1500 yards from the disposal point, the observer shall note animals behavior, relative position, and direction and speed of movement to determine if release of dredged material is likely to harass or endanger the animals. For example, whale actively feeding at or near the disposal point are more likely than resting whales to interact with released sediments. If the observer judges that disposal is likely to harass or endanger the animals, the observer shall inform the vessel captain. Disposal shall be delayed until the animals change their behavior or move away such that the observer judges that no danger to the animals will result from disposal. In the event that behavior and direction of movement is unpredictable, operators should use the alternative approved disposal point. In the presence of right whales, the most protective operational measure is advised.

IV. Other Responsibilities of Vessel Operator/Onboard Observer (as appropriate):

(a) The observer is responsible for contacting NMFS early warning network for the most recent information on whale movements and locations prior to departure for the disposal site to check for the presence of whales.

(b) The observer shall report all whale sightings, noting location, to the early warning network at the end of the day. The observer shall call pager

number 978-585-8473 if a Right Whale is spotted. The World Wide Web site is http://whale.wheelock.edu/whalenet-stuff/rw_intro.html.

-- End of Section --

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SECTION 02325

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SECTION 02325

DREDGING

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

CORPS OF ENGINEERS (COE)

COE EM-385-1-1 (1996) Safety and Health Requirements Manual

1.2 RELATED WORK SPECIFIED ELSEWHERE

1.2.1 Environmental Protection Requirements

Provide and maintain during the life of the contract, environmental protective measures. Also, provide environmental protective measures required to correct conditions, such as oil spills or debris, that occur during the dredging operations. Comply with Federal, State, and local regulations pertaining to water, air, and noise pollution. See Section 01355 ENVIRONMENTAL PROTECTION.

Additional requirements relative to protection of finfish and marine mammals, are specified in Sections 01355 ENVIRONMENTAL PROTECTION and 02328 UNDERWATER DRILLING AND BLASTING.

1.2.2 Underwater Diving Operations

In the event that underwater diving operations become necessary due to the work of this contract, such operations shall be conducted in accordance with CORPS OF ENGINEERS (COE) COE EM-385-1-1 Section 30.

1.3 DEFINITIONS

1.3.1 Maintenance Material

Maintenance material is defined as the shoals and silty sediments that have accumulated within the Federal Channel, anchorage areas, and the Navy Dry Dock approach channel since completion of the last improvement or maintenance dredging. Maintenance material also includes accumulated silty sediment material that sloughs off side slopes.

1.3.2 Rock Material

Rock material is defined as material requiring drilling and blasting or the use of special equipment for economical removal, and includes boulders or rock fragments too large to be removed in one piece by the dredge. Rock

material shall be removed as specified in Section 02328 UNDERWATER DRILLING AND BLASTING. Blasting shall be performed only by experienced persons. Conduct operations in strict accordance with applicable regulations.

1.4 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Work Plan; G, RE.

The Contractor shall submit a work plan for accomplishing the dredging work of this contract. The following items shall be considered, at a minimum, for inclusion in the work plan:

- a. Anticipated plant and equipment.
- b. Proposed means and methods for removal of rock ledge and boulders.
- c. Proposed method of demolition and removal of the sunken flat deck barge. Include the proposed procedures for breaking-up the barge, removing all of the resulting debris, and verifying that the barge has been completely removed.
- d. Expected coordination requirements.
- e. Survey requirements.
- f. Proposed means and methods for minimizing turbidity during dredging operations.
- g. Proposed measures for avoiding damage to adjacent structures and banks of the Harbor.
- h. Proposed measures to avoid overdredging.

Enclosed, Clamshell Bucket Performance Data; G, C.

Submit Enclosed Clamshell Bucket Performance Data to the Contracting Officer of approval before commencement of work.

Debris Management Plan.

A debris management plan shall be developed as specified in this section and submitted to the Contracting Officer for review.

Inspection of Disposal.

Submit names of inspectors certified by the Corps of Engineers to be used for monitoring disposal activities for the Government.

Scow Cards.

Submit scow cards for each scow to be used for contract work. Scow cards

shall have information specified in paragraph "Scows."

SD-05 Design Data

Equipment and Performance Data.

The Contractor shall furnish proof of electronic positioning equipment calibration to the Contracting Officer.

Daily/Monthly Report of Operations

The Contractor shall prepare and submit two (2) copies of the Daily Report of Operations, using ENG Form No. 4267, for each dredge. This report shall be submitted on a daily basis. A copy of this form is appended to the end of this Section. In addition to the daily report, the Contractor shall prepare a Monthly Report of Operations for each month or partial month's work on ENG Form No. 4267. The monthly report shall be submitted to the Contracting Officer on or before the 7th of each month, consolidating the previous month's work. Upon completion of the project, the Contractor shall submit a consolidated project report, combining the monthly reports.

Additionally, one copy of the reports shall be maintained by the Contractor on each dredge for the Contracting Officer's inspection purpose. Further instructions on the preparation of the reports will be furnished at the Preconstruction Conference.

1.5 NOTIFICATIONS

1.5.1 Notice of Misplaced Material

The Contractor shall notify the Contracting Officer and the U.S. Coast Guard Marine Safety Office of any misplaced material.

1.5.2 Notice of Need for Dredging Survey

The Contractor shall give advance notice to the Contracting Officer of the need for a after-dredging survey for final acceptance for each acceptance section. See Section 01723 FIELD ENGINEERING FOR DREDGING, Article GOVERNMENT SURVEYS.

1.5.3 Relocation of Navigation Aids

The Contractor shall not remove, change the location of, obstruct, willfully damage, make fast to, or interfere with any aid to navigation. The Contractor shall notify the Coast Guard District Commander, in writing, with a copy to the Contracting Officer, 30 days in advance of the time he plans to dredge adjacent to any aids which require relocation to facilitate the dredging operation. A copy of the notification shall be provided to the Contraction Officer.

1.6 MATERIAL TO BE REMOVED

1.6.1 Character of Materials to be Removed

Samples have been taken by the Government to determine the character of materials to be removed. Although the results of such explorations are representative of subsurface conditions at their respective locations, local minor variations in the subsurface materials are to be expected and, if encountered, will not be considered materially different within the

purview of the contract. Grain size analysis of the samples and maps of the locations where the samples were taken in the areas to be dredged are included in Appeddix A, attached at the end of this section. The Contractor is expected to examine the site of the work and decide the character of the material for himself.

1.6.1.1 Grain Size Analysis

Physical grain size analysis showed that the material from the 35-foot and 40-foot MLW Main Ship Channel and the Navy Dry Dock are composed of silty black mud. The material from the President Roads anchorage area is composed of dark clay/silt material with fine sand while grain size analysis of the material from the 40-foot MLW Broad Sound (North) Channel indicates that the material is predominately sand, gravel, and cobbles.

1.7 WORK AREA

1.7.1 Access

The Contractor shall be responsible for providing and maintaining access necessary for his equipment and plant to and from the work site, mooring areas, and the disposal areas. The Contractor shall ascertain the environmental conditions which can affect the access such as climate, winds, currents, waves, depths, shoaling, and scouring tendencies.

1.7.2 Protection of Existing Waterways

The Contractor shall conduct his operations in such a manner that material or other debris are not pushed outside of dredging limits or otherwise deposited in existing side channels, basins, docking areas, or other areas being utilized by vessels. The Contractor will be required to change his method of operations as may be required to comply with the above requirements. Should any bottom material or other debris be pushed into areas described above, as a result of the Contractor's operations, the material must be promptly removed.

1.7.3 Adjacent Property and Structures

The Contractor shall conduct the dredging operation such that it does not undermine, weaken or otherwise impair existing structures located in or near the areas to be dredged. The Contractor shall investigate the existing structures at the site and plan the dredging work accordingly.

Damage to private or public property or structures resulting from the disposal or dredging operations shall be repaired promptly by the Contractor at his expense. Damage to structures resulting from the Contractor's negligence will result in suspension of dredging and require prompt repair at the Contractor's expense as a prerequisite to the resumption of dredging.

1.7.4 Artificial Obstructions

The Contractor may encounter bottom debris such as, but not limited to, pieces of broken cable, rope, miscellaneous metal, and broken and derelict moorings. The location of the sunken barge to be removed is indicated on the drawings. Special or additional plant may be required for the economical removal of the barge. The Government has no knowledge of other existing wrecks, wreckage, or other artificial obstructions of such size or character as to require the use of explosives or special means for its

removal. During dredging operations, the Contractor shall remove all debris encountered. Floating debris removed from the dredging area shall be separated and stockpiled for upland disposal. Disposal in accordance with local, Federal, and State laws and regulations shall be the responsibility of the Contractor. In case the actual conditions differ from those stated or shown, or both, an adjustment in contract price or time of completion, or both, will be made in accordance with "FAR 52.236-2, Differing Site Conditions."

1.7.5 Existing Utilities

1.7.5.1 Private Utilities and Public Agencies

The following tabulation of utility owners and public agencies is provided for the convenience of the Contractor:

~~LIST NOT CONFIRMED~~

- a. Nstar - Greg Sullivan Director, Transmission Engineering
NSTAR Electric
One NSTAR Way
Westwood, MA 02090-9230 (781) 441-8515 and (781)
441-8559 (fax) or Beverly Schultz 781-441-3809.
- ~~b. NYNEX: - Everette Bryan (617) 381-6423.~~
- c. Keyspan - Walter Fromme 617-723-5512 x 4421.
- d. MWRA - Robert Casey (E&CD Dept/Tech Support) Chelsea Facility 2
 Griffin Way Chelsea MA 02150 (617) 305-5715 and (617) 371-1606 (fax).
- e. Verizon - Mr. Frank Furber (185 Franklin St., Boston) (617)
 743-4329 (617) 330-1688 (fax).

1.7.5.2 Protection of Utility Lines

Existing utility lines that are shown on the drawings or the locations of which are made known to the Contractor prior to dredging, and that are to be retained, shall be protected from damage during dredging, and if damaged, shall be satisfactorily repaired by the Contractor at no additional cost to the Government. Prior to commencement of dredging, the Contractor shall coordinate with the Contracting Officer and the applicable utility company to mark the exact locations of existing utilities, and establish in detail the proposed method of protecting the existing utilities. "No Spud" areas are marked on the contract drawings for protection of known utilities. In the event that the Contractor damages any existing utility lines that are not shown on the drawings or the locations of which are not known to the Contractor, report thereof shall be made immediately to the Contracting Officer. If the Contracting Officer determines that repairs shall be made by the Contractor, such repairs will be ordered under the Contract Clause entitled "DIFFERING SITE CONDITIONS."

1.8 QUANTITY OF MATERIAL

The total estimated amount of material to be removed from within the specified limits, including side slopes and allowable overdepths is shown on the Bidding schedule. The estimated quantity for bidding purposes and for application of the "FAR 52.212-11, Variation in Estimated Quantity" shall be the total quantity, including overdepth. The quantities listed

are estimates only.

1.9 OVERDEPTH AND SIDE SLOPES

1.9.1 Allowable Overdepth

To cover unavoidable inaccuracies of dredging processes, material removed to the overdepth shown on the drawings and within the dredging limits will be measured and paid for at full contract price.

1.9.2 Side Slopes

Material dredged to provide for final indicated side slopes will be measured and paid for at the applicable unit price. The material may be dredged from the original position or by dredging the space below the pay slope plane at the bottom of the slope for upslope material capable of falling into the cut. Payment will not be made for material in excess of the amount originally lying above the pay slope plane. The limiting amount of side-slope overdepth will be measured vertically.

Dredging on side slopes shall follow, as closely as practicable, the lines indicated on the drawings. An allowance will be made for dredging beyond the lines indicated or specified for side slopes. The allowance will be determined by projecting a line upwards, paralleling the project design side slopes, from the intersection of the overdepth dredging limit (at a point located vertically below the limit of dredging at the top of slope). The amount of material excavated from side slopes will be determined by either cross-sections or computer, or both.

1.9.3 Excessive Dredging

Material taken from beyond the limits as extended in the Article "OVERDEPTH AND SIDE SLOPES" above will be deducted from the total amount dredged as excessive overdepth dredging, or excessive side-slope dredging for which payment will not be made.

1.10 INSPECTION

Inspect the work, keep records of work performed, and ensure that gages, targets, ranges, and other markers are in place and usable for the intended purpose. See Section 01451 CONTRACTOR QUALITY CONTROL.

1.10.1 Method of Communication

Provide a system of communication between the dredge crew, towboats, the fish and mammal Observer, the disposal inspector, and the Contracting Officer. Portable two-way marine radios are acceptable.

1.10.2 Transportation

The Contractor shall furnish, at the request of the Government Representative or fish and mammal observer, the use of such boats, boatmen, laborers, and material forming a part of the ordinary and usual equipment and crew of the equipment or marine plant as may be reasonably necessary in inspecting and monitoring the work. The Contractor shall furnish, on the request of the Government Representative observer, suitable transportation from all points on shore designated by the Contracting Officer to and from the various pieces of plant, and the work site.

1.11 INSPECTION OF DISPOSAL

The Contractor shall be and provide qualified disposal inspection services at no additional cost to the Government. The Contractor shall notify the Contracting Officer of the names of the Corps of Engineers Certified inspectors to be used prior to commencement of work. Every discharge of dredge material must be officially witnessed and properly documented by an onboard inspector who has been trained by, and who holds a current certification from the New England District, Army Corps of Engineers. Failure to adhere to this requirement will be considered a serious violation of this contract and cause for an immediate stop-work order by the Contracting Officer and which could precipitate substantial penalties including but not necessarily limited to fines, withholding of funds and non-payment due to misplaced materials.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 DREDGING PLANT AND ASSOCIATED EQUIPMENT

3.1.1 Dredging Plant

All dredging under this contract shall be performed using a mechanical type dredge. Hydraulic dredging will not be permitted. To reduce the effects of turbidity on water quality, an enclosed clamshell bucket shall be used when dredging in silty areas. A conventional open bucket may be used for dredging in sandy areas. The maintenance material in the area indicated on the drawings as "Broad Sound North Channel" is considered sandy and may be dredged using a conventional bucket. Blasted rock bedrock and boulders may also be excavated using a conventional bucket. Maintenance material in all other reaches of the Federal channel and harbor is considered silty and shall be dredged using an enclosed clamshell bucket. Overflow of water from scows while being filled will not be permitted for any part of dredging operations.

3.1.2 Enclosed Clamshell Bucket

Dredging of silty maintenance material, in the areas indicated on the drawings, shall be performed using an enclosed clamshell bucket. The dredge bucket shall be designed to completely enclose the dredged sediment and water captured. The bucket shall not have teeth. This is to prevent the bucket from digging into the harder native material. The bucket shall be equipped with escape valves which shut when the bucket is withdrawn from the water column. Submit Enclosed, Clamshell Bucket Performance Data to the Contracting Officer for approval before commencement of work.

3.1.2.1 Enclosed Clamshell Bucket Control

The Contractor shall demonstrate that the dredge operator has sufficient control over bucket depth in the water and bucket closure so that silty sediment re-suspension from bucket contact with the bottom and due to bucket over-filling can be minimized.

3.1.2.2 Equivalent Alternative Dredging Technology

Alternatives to the enclosed clamshell bucket technology for the removal of silt maintenance materials will not be considered under this contract.

3.1.3 Tow Boats

All tow boats used for towing to disposal areas shall be equipped with DGPS navigational equipment, radar, corrected compass, marine radio, and depth sounding equipment which is to be maintained in operating condition during each tow. The tow boats utilized by the Contractor for this purpose shall be of a size adequate for towing in heavy seas and shall have necessary reserve power for maneuvering with scows in rough seas and under emergency conditions as well as for control of scows at the disposal point.

3.1.4 Scows Cards

a. Water and dredged materials shall not be permitted to overflow or spill out of scows when being filled. Failure to repair leaks or change the method of operation which is resulting in overflow or spillage will result in suspension of dredging operations and require prompt repair or change of operation to prevent overflow or spillage as a prerequisite to the resumption of dredging.

b. The Contractor shall provide and maintain markings on all scows clearly indicating the draft of the scow and shall provide scow cards for each scow used on the contract work. The scow cards shall show dimensions and volumes of individual pockets of scows and total volumes for varying depths below coaming or top of pockets. This is to enable Government personnel to make a determination of scow volume and corresponding drafts under partial and full load conditions. These measurements are to be made at the time of initial use of each scow. This information will then be furnished to disposal inspectors to enable them to estimate scow volume from draft of scows for each scow being towed to the disposal area. The scow volume estimates are for use in connection with disposal area monitoring studies and are not intended to be used in determining quantities dredged. At the beginning of the work and as additional scows arrive on the project, sufficient time shall be allowed by the Contractor and assistance of Contractor personnel shall be made available by the Contractor for the purpose of obtaining the measurements of each scow under various partial and full load conditions. During the entire period of contract work, the Contractor shall provide and maintain sufficient spot or floodlights to permit the reading of the draft on the sides of scows at bow and stern from the tow boat at night and when visibility is impaired. The draft readings and each pocket/compartments measurement will be required for each scow towed to the disposal area and will be made by the disposal inspector. Measurements are to be taken and recorded prior to departure from the dredge site and upon arrival at the immediate disposal location. The Contractor shall ensure that adequate time is allowed by the tow boat captain for these readings to be obtained.

c. Due to the fine nature of the dredged material, the Contractor shall achieve proper closure and watertightness of pocket doors to eliminate seepage or leakage of material. The use of plastic material to cover cracks in scow pockets will not be allowed.

3.1.5 Lights

Each night, between sunset and sunrise and during periods of restricted visibility, provide lights for floating plants, ranges, and markers. Also, provide lights for buoys that could endanger or obstruct navigation. When night work is in progress, maintain lights from sunset to sunrise for the observation of dredging operations. Lighting shall conform to United States Coast Guard requirements for visibility and color.

3.2 CONDUCT OF DREDGING WORK

3.2.1 Order of Work

- a. In order to avoid potential impact on winter flounder spawning, the Contractor shall sequence the work so that dredging West of Spectacle Island is not conducted during the 1 February to 15 June timeframe.
- b. The Contractor shall start and complete the work in the order of precedence as approved by the Contracting Officer. The Government reserves the right to change the order of work at any time. The Contractor shall fully coordinate all work with the Harbormaster.
- c. The Contractor shall prepare and submit to the Contracting Officer for review and approval a progress schedule in accordance with Section 01110, Paragraph "Work Sequence."

3.2.2 Method of Dredging

- a. All dredging under this contract shall be performed using a mechanical type of dredge and scows.
- b. Contract depth shall be achieved by mechanically dredging the bottom using a clamshell bucket. Dragging the bottom to remove lack of contract depth, using a steel beam or similar equipment, will not be permitted.
- c. Requirements for the excavation of rock and boulders by drilling and blasting are specified in Section 02328 UNDERWATER DRILLING AND BLASTING.
- d. Requirements for the removal of the sunken steel barge are specified below in Article "Removal of Sunken Barge."

3.2.3 Method of Disposal

- a. Disposal of the dredged material will be at the Massachusetts Bay Disposal Site, the center of which is located at 42 25.106 north latitude and 70 34.969 west longitude. Every discharge of dredged material shall be witnessed by an inspector who has been trained and certified by the New England District, Corps of Engineers to insure that disposal occurs at the designated site.
- b. Provide for safe transportation and disposal of dredged materials. Transport and dispose of dredged material at the Massachusetts Bay Disposal Site (MBDS) and dispose at a taut wire buoy. The maximum distance to which material will have to be transported to the disposal site will not exceed 20 nautical miles.
- c. Deposit dredged material by self-dumping scow or barge. Do not remove loaded or partially loaded scows or barges from the dredge area until the load has been measured by the Contracting Officer. Notify the Contracting Officer when scows or barges are returned to the dredge area.
- d. Buoy positions will be documented and monitored by Government inspectors during the course of work. The Contractor will be required to use care in making his turn into the travel lane to avoid lobster buoys/fishing gear. The disposal points will be marked by one or more buoys. Coordinates of the buoys locations will be specified at the time a disposal inspector is approved by the Contracting Officer. All disposal

shall be done at the buoys with the scow at a complete halt. This requirement must be followed except when weather or sea state create unsafe conditions, in which case disposal within 100 feet of the buoy with the scow moving only fast enough to maintain safe control (generally less than one knot) will be permitted. Disposal shall not be attempted if the above conditions cannot be met. Anticipated weather conditions shall be determined prior to departing for the disposal site.

e. Provide whale observers on board the scows transiting to the MBDS from February to May 31 to avoid potential ship strikes.

3.2.4 Removal of Sunken Barge

The barge is located on the edge of the Broad Sound North Channel, as indicated on the drawing. The vessel is a steel hull, flat deck barge in two pieces. The larger piece is about 100-120 feet long and 40-50 feet wide. The smaller piece is about 10-20 feet long and 40-50 feet wide. There is marine growth on the barge, indicative that the barge has been sunk for some time. There is no cargo aboard the barge. The contractor shall propose a plan for demolition and removal of the sunken barge and include the plan in the work plan submittal for the approval of the Contracting Officer. Include in the proposed the procedures for verifying the location of the barge, breaking-up the barge, removing all of the resulting debris, and verifying that the barge has been completely removed.

Demolition methods may include underwater cutting, breaking, controlled blasting and other methods approved by the Contracting Officer. Underwater blasting shall be performed in accordance with Section 02328 UNDERWATER DRILLING AND BLASTING, with peak particle velocities no greater than 1.0 inch per second. Steel parts comprising the barge shall be disposed at a upland disposal site furnished by the Contractor.

3.2.5 Alternative Disposal Sites

Bids received shall be based on utilizing only the above described areas. Alternate areas will not be considered until after the award of the contract. If, after the award of the contract, a disposal area other than that stipulated in these specifications is proposed, its acceptance will be subject to the approval of the Contracting Officer after an adjustment of the contract price if found necessary by the Contracting Officer to protect the Government interest. The Contractor shall obtain the written consent of the owners of the substitute grounds and furnish evidence thereof to the Contracting Officer. All expenses incurred in connection with providing and making available such disposal areas shall be borne by the Contractor, and all materials deposited thereon, and all operations in connection therewith, shall be at the Contractors risk. Comply with rules and regulations of local port and harbor governing authorities.

3.2.6 Misplaced Material Disposal

Material that is deposited elsewhere than in locations designated or approved by the Contracting Officer will not be paid for and the Contractor shall be required to remove such misplaced material and deposit it where directed at his expense.

3.2.7 Interference with Navigation

Minimize interference with the use of channels and passages. The Contracting Officer will direct the shifting or moving of dredges or the interruption of dredging operations to accommodate the movement of vessels

and floating equipment, if necessary. The Contractor shall comply with all requests from the Contracting Officer to move or interrupt dredging operations for a reasonable time period at no additional cost to the Government.

3.2.8 Ranges, Gages, and Lines

Furnish, set, and maintain ranges, buoys, and markers needed to define the work and to facilitate inspection. Establish and maintain gages in locations observable from each part of the work so that the depth may be determined. Suspend dredging when the gages or ranges cannot be seen or followed. The Contracting Officer will furnish, upon request by the Contractor, survey lines, points, and elevations necessary for the setting of ranges, gages, and buoys.

3.2.9 Debris Management

Debris removed from the bottom during dredging operations, which is not suitable for disposal at the Massachusetts Bay Disposal Site (MBDS), shall be collected and removed from the site. Unsuitable materials include large items such as timbers, pilings, sections of piers, and metallic debris. A debris management plan shall be developed, reviewed by the Contracting Officer and followed by the Contractor. Each day during dredging operations, the Contractor shall use a boat to collect and remove floating debris resulting from project activities. Floating debris shall also be removed from within scows or barges. Containers for temporary storage of the collected debris shall be maintained on the dredge or support barge. In the event debris material prevents the dredge bucket from closing properly, then the bucket shall be held close to the bottom to allow the dredged material and debris to fallout before lifting the bucket through the water column to reduce turbidity impacts.

3.3 SHOALING

If, before the contract is completed, shoaling occurs in any section previously accepted, including shoaling in the finished channel because of the natural lowering of the side slopes, redredging at contract price, within the limits of available funds may be done if agreeable to both the Contractor and the Contracting Officer.

3.4 FINAL CLEANUP

Final cleanup shall include the removal of all the Contractor's plant and equipment. Plant, equipment, and materials to be disposed of shall only be disposed in a manner and at locations approved by the Contracting Officer. Unless otherwise approved by the Contracting Officer, the Contractor will not be permitted to abandon any equipment in the disposal area or other areas adjacent to the worksite.

Failure to promptly remove all plant, equipment, and materials upon completion of the dredging will be considered a delay in the completion of the final cleanup and demobilization work. In such case, the Government will exercise its right to remove any plant, equipment, and materials at the Contractor's expense.

-- End of Section --

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